	Application No.	Applicant(s)
Notice of Allowability	Application No.	Applicant(s)
	10/734,799	EPSTEIN ET AL.
	Examiner	Art Unit
	Dixomara Vargas	2859
The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.		
1. X This communication is responsive to <u>Amendment filed 08/24/05</u> .		
2. A The allowed claim(s) is/are 2-4,6-18 and 20-35.		
 3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have been received. 		
2. Certified copies of the priority documents have been received in Application No		
3. Copies of the certified copies of the priority documents have been received in this national stage application from the		
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		
4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.		
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.		
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached		
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date		
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).		
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.		
Attachment(s)	5 7 3 3 4 3 5	
 Notice of References Cited (PTO-892) Notice of Draftperson's Patent Drawing Review (PTO-948) 		atent Application (PTO-152)
	6. Interview Summary (Paper No./Mail Date	P1O-413),
 Information Disclosure Statements (PTO-1449 or PTO/SB/08 Paper No./Mail Date 04/22/04; 03/07/05 	Paper No./Mail Date B), 7. ☐ Examiner's Amendm	ent/Comment
4. Examiner's Comment Regarding Requirement for Deposit	8. X Examiner's Statemer	nt of Reasons for Allowance
of Biological Material	9.	·

Application/Control Number: 10/734,799

Art Unit: 2859

DETAILED ACTION

Allowable Subject Matter

- 1. Claims 2-4, 6-18 and 20-35 are allowed.
- 2. The following is an examiner's statement of reasons for allowance:
- 3. With respect to claim 9, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a method of synthesizing pulses that produce a given selective excitation profile in a system including at least one of a two level quantum system and a subsystem describe by the spin domain Bloch equation, comprising the steps of: constructing left and right Marchenko equations from the selected bound states and norming constants; and solving said Marchenko equations to provide a pulse envelope in combination with the remaining limitations of the claim.
- 4. With respect to claim 22, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a method of generating a desired frequency dependent excitation in a system including at least one of a two-level quantum system and subsystem described by the spin domain Block equation using selective pulses for a given selective excitation profile corresponding to said desired frequency dependent excitation comprising the steps of: constructing left and right Marchenko equations from the selected bound states and norming constants; and solving said Marchenko equations to provide a pulse envelope in combination with the remaining limitations of the claim.
- 5. With respect to claims 2-4, 6-8, 10-18, 20, 21 and 23-35, the claims have been allowed due to their dependency on claims 9 and 22 above.

Page 2

Application/Control Number: 10/734,799

Art Unit: 2859

Page 3

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dixomara Vargas Art Unit 2859

September 1, 2005

Diego Gutierrez

Supervisory Patent Examiner

Technology Center 2800